

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the above-captioned application.

1. (Currently amended): An instrumented rolling bearing ~~(1) of the type including comprising~~ a non-rotating ring ~~(2)~~, a rotating ring ~~(3)~~, at least one row of rolling elements ~~(4)~~ positioned between two raceways of the rotating ~~(3)~~ and non-rotating ~~(2)~~ rings, and an information sensor assembly comprising a non-rotating sensor unit ~~(7)~~ and a rotating encoder ~~(8)~~ provided with an active part, the encoder and the sensor unit being separated by a gap, ~~characterized in that~~ wherein the encoder ~~(8)~~ ~~includes~~ comprises a substrate ~~(16)~~ made of electrically non-conducting material and an electrically conducting thin layer ~~(17)~~ supported by the substrate, the substrate ~~(16)~~ rotating as one with the rotating ring ~~(3)~~.
2. (Currently amended): The device as claimed in claim 1, ~~characterized in that~~ wherein the substrate ~~(16)~~ is annular.
3. (Currently amended): The device as claimed in claim 2, ~~characterized in that~~ wherein the substrate ~~(16)~~ has the overall shape of a disk.
4. (Currently amended): The device as claimed in ~~any one of the preceding claims~~ claim 1, ~~characterized in that~~ wherein the sensor unit ~~(7)~~ includes at least one inductive sensor.
5. (Currently amended): The device as claimed in ~~any one of the preceding claims~~ claim 1, ~~characterized in that~~ wherein the sensor unit ~~(7)~~ includes at least one microcoil.

6. (Currently amended): The device as claimed in ~~any one of the preceding claims~~claim 1,
characterized in that wherein the electrically conducting thin layer (17) ~~includes~~
comprises a plurality of angular sectors (18) separated from one another.
7. (Currently amended): The device as claimed in ~~any one of claims 1 to 5~~claim 1, characterized
~~in that~~ wherein the electrically conducting thin layer (17) is circularly continuous.
8. (Currently amended): The device as claimed in claim 7, ~~characterized in that~~ wherein the
electrically conducting thin layer (17) is delimited by two circles which are eccentric with
respect to one another.
9. (Currently amended): The device as claimed in ~~any one of the preceding claims~~claim 1,
characterized in that wherein the substrate (16) is pushed onto a land (3f) of the rotating
ring (3).
10. (Currently amended): The bearing as claimed in ~~any one of the preceding claims~~claim 1,
characterized in that wherein the substrate (16) is bonded to the rotating ring (3).
11. (Currently amended): The bearing as claimed in ~~any one of claims 1 to 8~~claim 1,
characterized in that wherein the substrate (16) is trapped against a radial surface of the
rotating ring (3).
12. (Currently amended): The bearing as claimed in ~~any one of the preceding claims~~claim 1,
characterized in that it includes further comprising an encoder support (26) mounted on a
cylindrical surface of the rotating ring.
13. (New): An instrumented rolling bearing comprising a non-rotating ring, a rotating ring, at

least one row of rolling elements positioned between two raceways of the rotating and non-rotating rings, a non-rotating sensor unit and a rotating encoder provided with an active part, the encoder and the sensor unit being separated by a gap, wherein the encoder comprises a substrate made of electrically non-conducting material and an electrically conducting thin layer supported by the substrate, the substrate rotating as one with the rotating ring.